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2000  
EDITION

*The  
Complete  
Reloading  
Manual  
for the  
7.62 x  
39mm*



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from U.S. Bullet  
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The essence of reloading safety is proper handling and storage of primers and powder. By observing the following rules, the chance of hazardous occurrence becomes extremely remote.

Store powder and primers beyond the reach of children and away from heat and open flames. Do not smoke when reloading.

Keep no more powder than needed in an open container. Immediately return unused powder to its original factory container.

Don't use any powder unless its identity is positively known. Scrap all mixed powders and those of uncertain or unknown identity.

Do not store primers in bulk. To do so is to create a bomb! Bulk primers will mass detonate. Do not use primers when their identity is lost. Safely dispose of unknown types of primers.

*Courtesy of Speer Reloading Manual No. 11*

All loading data contained in this book is the result of testing by the various bullet and powder manufacturers. Under carefully controlled conditions and with the components and test equipment specified, this data proved safe in their tests. Since none of the companies, nor the publisher, listed herein has control over the components and equipment which may be used with this published information, no responsibility is implied or assumed for results obtained through its use.

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Follow loading recommendations exactly. Don't substitute components for those listed. Start loading with the minimum powder charges. Understand what you are doing and why it must be done in a specific way. Stay alert when reloading. Don't reload when distracted, disturbed or tired.

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# **The Complete Reloading Manual for the 7.62 x 39**

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Winchester**

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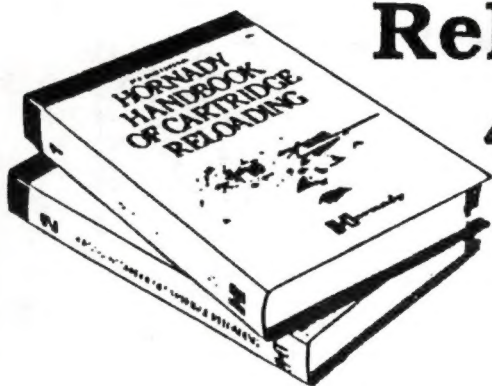
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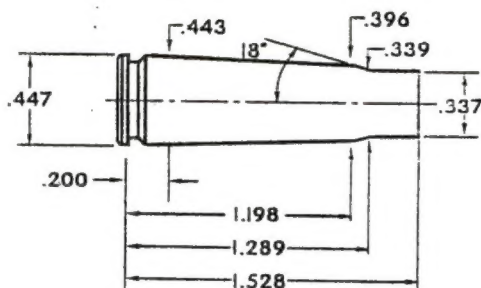
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## 7.62 X 39 - HORNADY BULLETS



### 7.62 X 39, M43

**RIFLE:** SKS CARBINE

**BARREL:** 20", 1 in 7½" TWIST

**CASE:** MIDWAY

**PRIMER:** WINCHESTER WSR

**BULLET DIA.:** .308"-.310"

**MAXIMUM C.O.L.:** 2.190"

**MAX. CASE LENGTH:** 1.528"

**CASE TRIM LENGTH:** 1.518"

The Soviet-German battle at Cholm in 1942 saw the introduction of a new cartridge, a new weapon and a new military tactic, all German. The new German cartridge (the 8mm Kurz) was of intermediate power, about midway between the submachine cartridges and a full rifle cartridge. Experts determined that most combat occurred at less than 400 yards and an intermediate cartridge was ideal for those ranges. Also, full automatic fire with these intermediate cartridges was far more controllable than with a full rifle cartridge. The Soviets realized the importance of these developments, and in 1943 introduced their own similar development, including the 7.62 X 39 (M43) cartridge.

Soviet influence and military aid saw the worldwide spread of SKS carbines, AK-47 rifles, and RPD light machine guns, all chambered for the 7.62 X 39. It is currently the official military caliber of many countries including China and Finland, and very popular in others including the United States. In factory or military form, it offers a 123 grain FMJ bullet at 2300 fps. Reloaders can easily equal this, but it is difficult to substantially surpass due to limited powder capacity. Foreign produced firearms have a .311" bore and are most accurate with .310" diameter bullets from Hornady. Ruger manufactures their Mini-30 with a .308" bore and caution should be used in using oversize bullets in this firearm. Two expander balls are included in Hornady die sets so .308" bullets can be used in 7.62 X 39 cases. Some shooters report respectable accuracy in shooting .308 bullets in either bore size. The 150 grain data uses the .308 spire point for those interested in using this caliber for deer hunting.

# 7.62 x 39 - HORNADY BULLETS

## 123 GRAIN BULLETS:

SECTIONAL DENSITY: .183  
DIAMETER: .310"

### #3140 SP

Ballistic Coefficient — .252

C.O.L. — 2.190"



### #3147 FMJ

Ballistic Coefficient — .266

C.O.L. — 2.190"



POWDER	VELOCITY				
	2000 fps	2100 fps	2200 fps	2300 fps	2400 fps
AA 1680	20.1 gr.	20.8 gr.	22.3 gr.	23.9 gr.	
IMR 4198	22.0 gr.	22.8 gr.	23.7 gr.	24.6 gr.	
RL-7	21.9 gr.	23.0 gr.	24.2 gr.	25.4 gr.	26.6 gr.
H322	25.0 gr.	26.2 gr.	27.3 gr.	28.5 gr.	

Indicates maximum load - use with caution

# 7.62 x 39 - HORNADY BULLETS

## 150 GRAIN BULLETS:

SECTIONAL DENSITY: .226  
DIAMETER: .308"

### #3031 SP

Ballistic Coefficient — .338  
C.O.L. — 2.220"



### #3033 BTSP

Ballistic Coefficient — .349  
C.O.L. — 2.220"



### #3037 FMJ-BT

Ballistic Coefficient — .398  
C.O.L. — 2.220"



POWDER	VELOCITY				
	1700 fps	1800 fps	1900 fps	2000 fps	2100 fps
IMR 4198	18.0 gr.	19.0 gr.	20.1 gr.	21.2 gr.	22.2 gr.
AA 1680	18.2 gr.	19.4 gr.	20.5 gr.	21.7 gr.	22.9 gr.
RL-7	18.8 gr.	19.9 gr.	21.2 gr.	22.2 gr.	
AA 2230	21.7 gr.	23.1 gr.	24.6 gr.	26.0 gr.	

Indicates maximum load - use with caution





## When You Need ALL the Facts...

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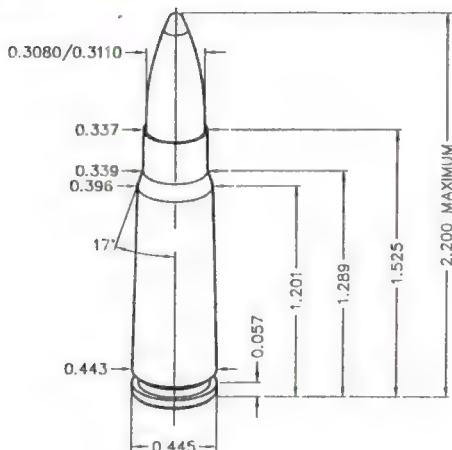
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## 7.62 X 39 - SIERRA BULLETS

### 7.62x39mm



#### Test Specifications

Firearm Used: Ruger Mini-Thirty  
Bbl. Length/Twist: 18 1/2"/1x10"

#### Test Components

Cases: PMC  
Trim-to Length: 1.515"  
Primers: CCI 200

#### Remarks:

Adopted by the Soviet Union in 1943, it was several years after the Second World War before the 7.62x39mm, or M43 in its military designation, came into widespread service. The M43 was originally chambered in the SKS semi-automatic rifle, and later the AK47 assault rifle. Many sources have stated that the Soviets developed this cartridge after their experiences on the receiving end of a very similar German round, the 7.92x33mm. Our research, however, leads us to the conclusion that this was a case of parallel development. Both the Soviets and the Germans had come to the same conclusions regarding the viability of full-sized battle rifles in modern warfare, conclusions it would take the U.S. another 20+ years to fully appreciate. In either case, the M43 served the Soviet Union and other Communist bloc countries as a primary service cartridge until the mid 1980s.

In terms of power, the 7.62x39mm is frequently compared to the .30/30 Winchester. However, this is not an entirely accurate comparison. The .30/30 is not only capable of producing higher velocities, but also able to use heavier bullets. The 7.62x39mm is adequate for deer at close range, but care should be taken to ensure precise shot placement. The vast majority of rifles chambered for the 7.62x39mm are military pattern autoloaders, not noted for their fine accuracy. Despite this reputation, we have encountered superb accuracy in several different rifles. In a good bolt action, the round has excellent accuracy potential. It is worth noting that the 6mm PPC, considered by many to be the most inherently accurate cartridge ever developed, is a descendant of the ubiquitous 7.62x39mm.

Some unique cautions apply when loading the 7.62x39mm. Rifles chambered for this round are readily available in two distinctly different bore sizes; .308" and the original .311" diameter. Reloading equipment manufacturers have



## 7.62 x 39 - SIERRA BULLETS

### 7.62x39mm, continued

recognized this, and most now supply two expander balls with their dies. One of these will be properly sized for reloading the larger .311" bullets, while the other should be used when loading .308" diameter projectiles. As a point of interest, we tried using .311" diameter bullets in our Ruger test rifle, as well as .308" diameter bullets in a Russian SKS. Although hardly an ideal situation, both combinations performed surprisingly well.

**.308 110 gr. RN**  
Cartridge OAL: 1.950"



**.308 110 gr. FMJ**  
Cartridge OAL: 1.950"



**.308 110 gr. HP**  
Cartridge OAL: 2.085"



Powder ↓ / Velocity →	2200	2250	2300	2350	2400	2450
IMR-4227	21.4	22.0	22.6	23.2	23.6	
Viht N120	23.1	23.7	24.3	24.9	25.4	
AA-1680	23.3	24.0	24.7	25.4	26.1	26.8
680	21.6	21.9	22.2	22.5	22.8	23.2
Norma 200	26.0	26.4	26.8	27.3	27.8	28.2
H4198	24.9	25.4	25.9			
AA-2015 BR	27.6	28.3	29.0			
RE-7	25.3	25.8	26.3	26.9		
Energy/ft.lbs.	1182	1236	1292	1349	1407	1466

**Accuracy Load:** IMR-4227/23.2 grs.; 2350 fps/1349 ft.lbs.

**Hunting Load:** IMR-4227/23.6 grs.; 2400 fps/1407 ft.lbs.

**INDICATES MAXIMUM LOAD - USE CAUTION**  
LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.

# 7.62 X 39 - SIERRA BULLETS

## 7.62x39mm, continued

**.308 125 gr. (.30-30) HPFN**  
Cartridge OAL: 1.910"



Powder ↓ / Velocity →	2000	2050	2100	2150	2200	2250
IMR-4227	19.8	20.3	20.8	21.3	21.8	22.3
Viht N120	21.4	22.0	22.6	23.2	23.8	24.4
AA-1680	21.4	22.0	22.6	23.2	23.8	24.3
680	20.0	20.5	21.0	21.5	22.0	22.3
Norma 200	23.5	24.1	24.7	25.3	26.0	26.5
H4198	22.0	23.6				
AA-2015 BR	25.6	26.2	26.8	27.4	28.0	28.7
RE-7	22.6	23.0	23.4	23.8		
<b>Energy/ft.lbs.</b>	<b>1110</b>	<b>1166</b>	<b>1224</b>	<b>1283</b>	<b>1343</b>	<b>1405</b>

**Accuracy Load:** IMR-4227/21.8 grs.; 2200 fps/1343 ft.lbs.  
**Hunting Load:** IMR-4227/22.3 grs.; 2250 fps/1405 ft.lbs.

**.308 125 gr. Spitzer**  
Cartridge OAL: 2.185"



Powder ↓ / Velocity →	2000	2050	2100	2150	2200	2250	2300
IMR-4227	19.7	20.4	21.1	21.8	22.5	23.0	
Viht N120	21.4	22.0	22.6	23.2	23.8	24.5	
AA-1680	21.7	22.0	22.7	23.4	24.1	24.8	
680		21.9	22.1	22.3	22.6	22.9	23.0
Norma 200	24.0	24.5	25.0	25.5	26.0	26.6	27.2
H4198	23.1	23.7	24.3	24.9	25.7		
AA-2015 BR	26.3	26.7	27.1	27.5	28.0	28.4	
RE-7	23.5	24.1	24.7	25.3	25.9	26.3	
<b>Energy/ft.lbs.</b>	<b>1110</b>	<b>1166</b>	<b>1224</b>	<b>1283</b>	<b>1343</b>	<b>1405</b>	<b>1468</b>

**Accuracy Load:** IMR-4227/22.5 grs.; 2200 fps/1343 ft.lbs.  
**Hunting Load:** IMR-4227/23.0 grs.; 2250 fps/1405 ft.lbs.

**INDICATES MAXIMUM LOAD - USE CAUTION**  
LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.

# 7.62 x 39 - SIERRA BULLETS

## 7.62x39mm, continued

**.308 135 gr. Spitzer**  
Cartridge OAL: 2.185"



Powder ↓ / Velocity →	2000	2050	2100	2150	2200	2250
IMR-4227	20.0	20.7	21.4	22.0	22.6	
Viht N120	21.4	22.0	22.6	23.2	23.8	24.4
AA-1680	21.2	22.0	22.8	23.6	24.4	
680	21.1	21.4	21.7	22.0	22.3	22.5
Norma 200	23.6	24.2	24.8	25.4	26.0	26.5
H4198	21.9	22.8	23.7	24.7		
AA-2015 BR	25.5	26.0	26.5	27.1	27.6	
RE-7	23.0	23.4	23.8	24.3	24.8	
<b>Energy/ft.lbs.</b>	<b>1199</b>	<b>1260</b>	<b>1322</b>	<b>1385</b>	<b>1451</b>	<b>1518</b>

**Accuracy Load:** RE-7/24.8 grs.; 2200 fps/1451 ft.lbs.

**Hunting Load:** RE-7/24.8 grs.; 2200 fps/1451 ft.lbs.

## SKS, AK-47 or other .311 Groove Dia. Rifles

**.311 125 gr. Spitzer**  
Cartridge OAL: 2.185"



Powder ↓ / Velocity →	2000	2050	2100	2150	2200	2250	2300
Viht N120	20.8	21.4	22.0	22.6	23.2	23.8	24.3
AA-1680	21.6	22.0	22.4	22.8	23.4	23.7	
Norma 200	23.4	23.9	24.4	24.9	25.5	26.0	26.5
AA-2015 BR	25.4	25.9	26.4	27.0	27.5	28.0	
<b>Energy/ft.lbs.</b>	<b>1110</b>	<b>1166</b>	<b>1224</b>	<b>1283</b>	<b>1343</b>	<b>1405</b>	<b>1468</b>

**Accuracy Load:** AA-1680/23.4 grs.; 2200 fps/1343 ft.lbs.

**Hunting Load:** Viht N120/24.3 grs.; 2300 fps/1468 ft.lbs.

**INDICATES MAXIMUM LOAD - USE CAUTION**  
LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED.



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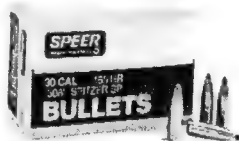
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This compact cartridge was developed by the Soviet military in answer to the effective German 8x33mm light assault rifle cartridge. Although the 8x33 was ballistically inferior to the standard 8x57mm German service rifle cartridge, it was significantly more effective than pistol cartridges like the 9mm Luger fired in submachine guns. The high rate of fire and effective range of the shorter cartridge (some 400 meters) made an impact on the Russians, who quickly copied it. The Russian version (the Model 43) was initially chambered in the semi-automatic SKS rifle and later in the Automat Kalashnikov Model 47—the AK-47. This cartridge became the primary service cartridge for most Eastern Bloc countries. Typically, it fires a 123 grain FMJ bullet at a nominal 2350 feet/sec.

The 7.62x39 cartridge was little known in this country until the Viet Nam conflict. During the last decade, a large number of rifles have been imported into this country. As a result, the cartridge is gaining in reloading popularity.

Boxer-primed cases suitable for reloading are now available from several sources. The standard bullet diameter for the 7.62x39 is .311". Speer offers a 125 grain Hot-Cor soft point suitable for hunting. This bullet was expressly designed for the 7.62x39 and features a cannelure to permit crimping.

Handloading procedures for the 7.62x39 are the same as for any similar cartridge. Some makes of reloadable cases require small rifle primers; check your cases before loading and sort them accordingly. We used a Ruger bolt-action rifle in our tests; velocities in semi-automatic carbines will typically be 100 feet/sec slower.

Like the 30 Carbine cartridge, the 7.62x39 is one of those "in between"

cartridges. Its performance is only slightly behind the 30-30 Winchester and some surplus rifles show reasonable accuracy. We feel that it is best limited to animals no larger than small deer, using the soft point bullet for humane kills. Bullets heavier than 125 grains produce relatively low velocities in this cartridge.

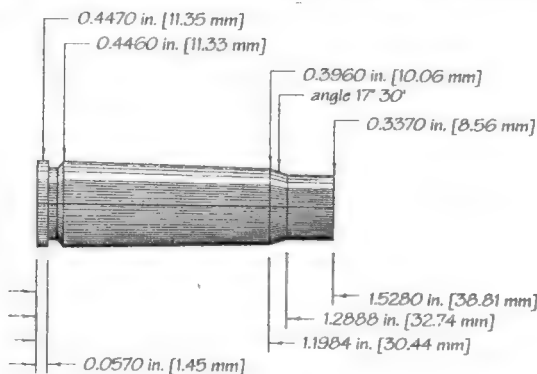
Millions of rounds of surplus, steel-case 7.63x39 ammunition have been imported in recent years. They are not suitable for reloading. Before reloading, sort brass carefully to remove all steel or Berdan-primed cases. A large magnet is useful in detecting steel cases.

The industry maximum average pressure of this cartridge is established at 50,000 cup. These loads remain within this limit.

**NOTE:** Many variants of the SKS rifle lack a firing pin retractor spring. These may inadvertently slam-fire (the cartridge fires as the bolt closes). High-seated primers, misfitted firing pins, incorrect headspace and dirty chambers can contribute to this phenomenon. Seat all primers .003" to .005" below flush and keep the chamber clean. If your rifle slam-fires, discontinue its use immediately until you can have the rifle checked by a gunsmith familiar with these rifles. The CCI No. 34 primer has mil-spec sensitivity and can reduce the chance of a slam-fire.



# 7.62 x 39 - SPEER BULLETS



Max. Case Length: 1.528"

Trim-to Length: 1.518"

Max. Cart. Length: 2.200"

RCBS Shellholder: #32

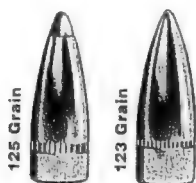
Barrel Length: 22"

Twist: 1-10"

Test Firearm: Ruger Model 77 Mark II

Case: IMI

Primers: CCI 200, No. 34



**.311" Dia.**

**125 Grain**

Sect. Density .184

**303  
Spitz-SP**

Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.
AA	28.0C	2544	Viht.	24.0	2350		31.5C	2250
1680	26.0	2422	N120	22.0	2206	BL-C(2)	29.5	2115
	27.0	2429		29.0C	2343	IMR	21.0	2214
Re7	25.0	2280	H322	27.0	2195	4227	19.0	1976
	28.5C	2410		31.5C	2325	IMR	29.0C	2198
AA	26.5	2246	H335	29.5	2174	4895	27.0	2088
2015BR	26.0C	2402	AA	30.0C	2308			
IMR	24.0	2246	2230	28.0	2198			

Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.	Powder	Wt. Grs.	Mzl.Vel.
AA	28.0C	2544	Viht.	24.0	2350		31.5C	2250
1680	26.0	2422	N120	22.0	2206	BL-C(2)	29.5	2115
	27.0	2429		29.0C	2343	IMR	21.0	2214
Re7	25.0	2280	H322	27.0	2195	4227	19.0	1976
	28.5C	2410		31.5C	2325	IMR	29.0C	2198
AA	26.5	2246	H335	29.5	2174	4895	27.0	2088
2015BR	26.0C	2402	AA	30.0C	2308			
IMR	24.0	2246	2230	28.0	2198			

Notes: Bold print denotes maximum loads. They should be used with caution. C = Compressed Load



Features  
Qwik-Disconnect  
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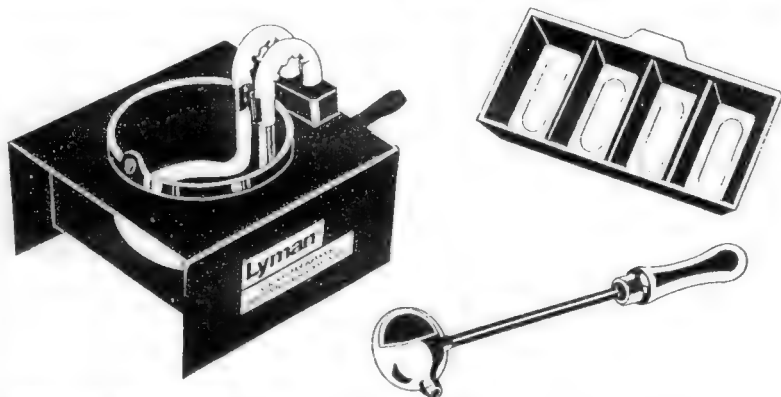
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## ***Reloading Data Introduction:***

The data listed in this section have been tested by our technicians and found to be safe when loaded with our test components and fired (under our laboratory controlled conditions) in our testing equipment. Since Lyman Products Corporation has no control over the manufacture of the various components listed, the actual loading, choice or condition of the firearms and components used, no responsibility for use of this data is implied or assumed.

## ***Components:***

The reader should bear in mind that the components listed are not of Lyman manufacture. Therefore, it is impossible that production changes affecting ballistic performance can occur at any time without our knowledge. If there is ever a question as to the correctness of the component specified, write to its manufacturer.

## ***Starting Load:***

It is essential that the reader begin with the suggested weight of powder listed in this bracket and work up slowly (following load development precautions) to his best performing load. The novice should use only the "starting load" for a period of time until he builds confidence and experience. Never decrease this charge as an increase in pressure could be encountered.

## ***Maximum Load:***

All loads which are listed as maximum were tested and classified as maximum by our technicians in accordance with our laboratory standards. Under no circumstances should these loads be exceeded, nor should they be quickly accepted by the reader as a safe working maximum for his particular rifle or pistol.

Many reloaders misinterpret the meaning of the "maximum load." They wrongly assume that if a high pressure load proved safe in a test laboratory then it is equally safe under any and all conditions. This is not true. The reader must start with the "starting load" and work up his load carefully. Working with his particular firearm and component combination, he may encounter signs of excess pressure before he reaches the maximum charge listed.

The technician classifies a load as maximum after carefully considering many aspects of its ballistic performance. The maximum average pressure of the load is not the only criteria. Often a load having an acceptable maximum average pressure will be rejected (or reduced) due to its erratic performance. Accuracy must also be considered, particularly when dealing with cast lead alloy bullets. In all instances, the maximum listing represents what our technicians consider to be the maximum working combination for the bullet, powder and caliber listed. These loads do not exceed SAAMI standards.

## ***Accuracy Loads:***

When a load is noted as such in the data tables proper, it means that the given combination of components produced the most uniform internal ballistics of any load tested utilizing that particular bullet design.



## 7.62 X 39 - LYMAN BULLETS

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Unless noted in "Comments," the accuracy load was not fired at targets. The load, however, does have a high potential—assuming all external factors are optimum—for producing outstanding accuracy since uniform internal ballistics are critical to accuracy on target. You cannot have one without the other.

### **Test Parameters:**

Velocities shown were taken at fifteen feet and not corrected to the muzzle.

Each test string began with a clean dry barrel and consisted of ten shots.

Loads exhibiting erratic internal ballistics were not pursued.

We had no problem with leading in any of our testing.

### **Bullets:**

Bullet numbers are listed in the introductory specifications for each cartridge and in the headline above the appropriate data block—along with an illustration of that particular bullet.

Please note these bullets are artists' rendering. Comparing your bullet against the drawing could reveal minor differences. Furthermore, minor changes are sometimes made to bullets. These drawings, which appear throughout the data sections, are for general reference only and are not intended to be a precise representation.

Bullet alloy is noted as is the exact weight of each tested bullet.

Not all cast bullets within a given caliber are intended to perform equally. We have used them in the most appropriate chamberings.

### **Powders:**

We have limited our testing to those powders which are manufactured in the United States and which are readily available to the consumer. The following brands are listed: Dupont (now IMR), Winchester, Hercules, Alcan, Hodgdon and Gearhart-Owen.

### **Compressed Loads:**

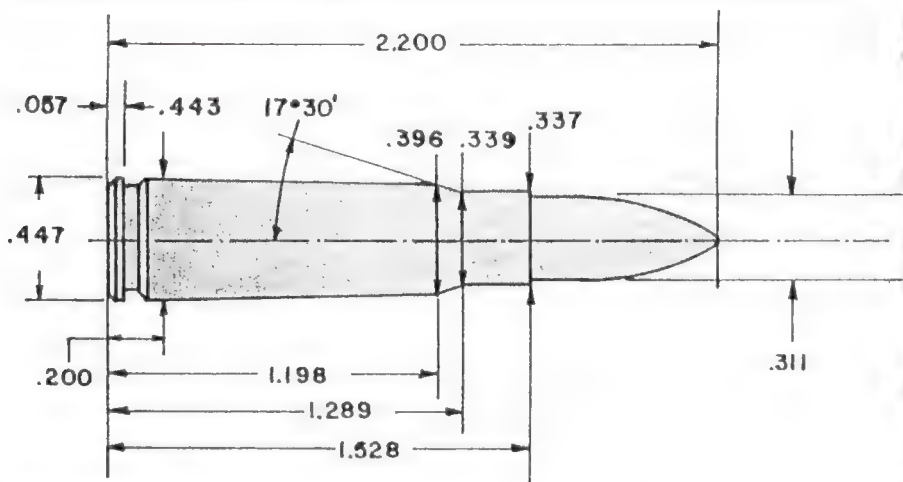
All compressed loads are indicated with a +. Depending upon the volume of the specific cartridge case used by the reader, he may, or may not, have difficulty starting bullets in such loads. If the bullet will not start, reduce the load sufficiently so that 1/10" of space remains in the case neck. Start the bullet into the case and use whatever additional pressure is required to fully seat the bullet. Failure to comply could result in a bulged case.

### **Filler Wads:**

Dacron filler wads in the form of 1/4-inch thick batting were used in conjunction with cast bullet loads, where indicated. This material can be purchased in most yard-goods stores. It should be cut into squares, which seal the case.

When developing a load, if a wad is desired, its should be used from the beginning as the charge weight is increased. It should never be added as an afterthought, once a maximum load has been established, since its presence could result in a pressure increase of 2,000 CUP or more.

## 7.62 x 39 - LYMAN BULLETS



### COMMENTS:

The Ruger Mini 30 was the final stamp of popularity for this cartridge which was originally designed for military style rifles. The Ruger rifles have used barrels with 0.308" groove diameters and are best loaded with the same diameter bullet. However, the standard bullet diameter for this cartridge, as loaded by most ammunition companies throughout the world, is 0.311". This is the proper diameter for the great quantity of SKS and AK47 rifles that are available in the surplus rifle market. We suggest slugging the bore on these rifles to verify their true bore size.

The 125 grain bullet weight seems ideal and a good first propellant choice would be Hercules Reloder 7. However many semi-auto firearms chambered for this cartridge are at their best when 5-shot groups at 100 yards get near 3 inches.

### TEST COMPONENTS:

Cases .....	Winchester
Trim-to Length .....	1.515"
Primers .....	Winchester WLR
Primer Size .....	Large Rifle
Lyman Shell Holder .....	No. 3
Cast Bullets Used .....	(Sized to .310" dia.)
*Gas Check Bullets .....	#311359, 113 gr.
	#311410, 130 gr.

### TEST SPECIFICATIONS: (Velocity & Pressure)

Firearm Used .....	Universal Receiver
Barrel Length .....	20"
Twist .....	1-9 1/2"
Groove Dia. ....	.310"

## 7.62 x 39 - LYMAN BULLETS



**#311359**

113 gr., (#2 Alloy) 2.060" OAL

POWDER	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
SR-4759	16.7	1978	29,000	18.7	2186	40,200
RX7	25.0	2189	28,100	30.0+	2561	41,100
AA2230	26.0	2092	32,000	32.0+	2445	44,200
Unique	8.0	1594	25,500	10.0	1816	36,500
IMR-4227	17.0	1906	25,800	19.2	2142	35,700
IMR-4198	19.8	1968	25,800	22.6	2273	39,000

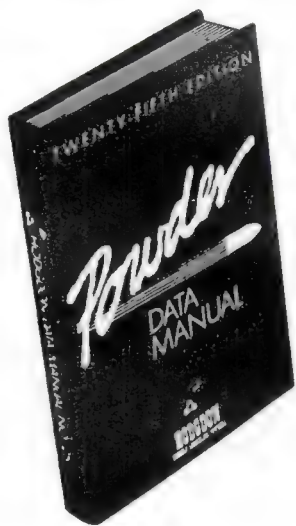


**#311410**

130 gr., (#2 Alloy) 2.200" OAL

POWDER	Sugg. Starting Grains	Velocity fps	Pressure C.U.P.	Max. Load Grains	Velocity fps	Pressure C.U.P.
SR-4759	16.5	1935	29,900	19.0	2139	37,600
RX7	25.0	2164	30,600	29.0+	2442	38,800
AA2230	25.0	2015	30,700	30.0+	2280	39,600
Unique	8.0	1552	23,500	10.3	1786	36,900
IMR-4227	17.5	1883	25,800	19.5	2097	35,900
IMR-4198	20.0	1897	25,500	22.0	2134	34,200

**Note:** Loads shown in shaded panels are maximum.  
+ Designates a compressed powder charge.



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72 Gr. Hodgdon H4350 Powder

## 7.62 X 39mm RUSSIAN

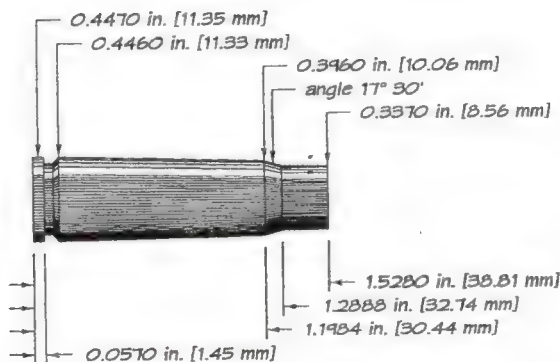
In 1943 the 7.62x39(m43) cartridge was adopted by the Soviet Union as their official military cartridge. Currently, other countries such as China and Finland claim it as their official military caliber. The cartridge is ideal for combat at ranges out to 300 yards and is extremely controllable under full automatic fire.

Thirty to 50 million Kalashnikov rifles have been made for the 7.62x39 in at least a dozen countries. It is renown in the U.S., however, was the development of the PPC cartridges which used the basic 220 Russian, originally formed from the 7.62x39. It was first wildcatted as the 22 PPC, followed by the 6mm PPC.

The standard 7.62x39 barrel is .311 inch, but a number of .308-inch rifle barrels have been made for use with .308 inch bullets. Some chamber throats are designed to handle .311 or .308 inch bullets.

For hunting, the 7.62x39mm is mostly a small game cartridge with some applications for small deer with the correct bullet selection.

...



Case: MIDWAY  
Base: 24"

1:9.45"  
1.518"

CCI 200

# 7.62 x 39 - HODGDON POWDERS

## HODGDON

POWDER	STARTING LOADS			MAXIMUM LOADS		
	GRS.	VEL.	PRESSURE	GRS.	VEL.	PRESSURE
<b>BULLET: 125 GR. SPR SP</b>			<b>DIA. .311"</b>	<b>C.O.L. 2.150"</b>		
BL-C(2)	30.0	2155	32,200 CUP	31.5	2349	38,800 CUP
H335	30.0	2219	35,400 CUP	31.5	2408	40,900 CUP
H4895	28.0	2171	29,900 CUP	29.0	2249	33,600 CUP
H322	28.0	2210	32,900 CUP	29.0	2323	35,400 CUP
H4198	24.5	2190	34,200 CUP	26.5	2378	40,400 CUP
<b>BULLET: 150 GR. HDY SP</b>			<b>DIA. .310"</b>	<b>C.O.L. 2.220"</b>		
BL-C(2)	27.0	1904	33,600 CUP	29.5	2090	40,400 CUP
H335	27.0	2055	36,000 CUP	29.0	2132	42,500 CUP
H4895	27.0	2080	33,600 CUP	28.0	2154	39,300 CUP
H322	27.0	2084	34,200 CUP	28.5	2192	40,400 CUP
H4198	22.5	1947	33,600 CUP	24.5	2122	39,800 CUP

**NEVER** EXCEED MAXIMUM LOADS.

## 7.62 X 39 - ACCURATE POWDERS

### Introduction

There has been a re-evaluation of the criteria for selecting data for inclusion. This means there will be some disagreement with previous data. The data in this guide takes precedence over **all** prior publications. *Previous editions of this loading guide should be discarded.*

For instance, we left out load combinations that were 'position sensitive'. This is what occurs when the load density is low. Velocity with the powder at the bullet is different from the velocity with the powder at the primer. More of these were noted with the ball propellants than with the extruded propellants.

In light of the growth of IPSC shooting, 38 Super Auto loads that make the 'major' classification (bullet weight x velocity = 175,000) are identified. While we have tested many combinations of components in 9mm Luger to attempt to meet 'major' requirements, we have not been able to find a load that makes the power floor for 'major' without exceeding SAAMI pressure recommendations. And while we were able to find loads for 38 Super Auto, they were not with lighter bullets. Turn to the data section for specific details.

In the charge tables, the 'START' charge listed for each load is our suggested beginning point with the components listed. There is the possibility that changing the named components could cause the maximum charge to be excessive, thus a reduction of the charge would be necessary. Some batches of military brass may require reducing the maximum charge by 8-12% to keep chamber pressure in line.

**If you find signs of excessive pressure while using loads in this loading guide, STOP TESTING and verify all data and loading procedures. If they seem to be in order, check with our lab facility before proceeding.**

Charge weights were obtained using industry standard pressure barrels. When time permitted, off-the-shelf weapons were used to obtain velocity figures. The guns used are noted.

In reloading, the prime concern should always be SAFETY. **Always** wear eye protection when reloading, even when working with the 'non-volatile' components. **Always** keep the reloading area clean. **Never** have more than one propellant within easy reach at any given time. Avoid having similar looking bullets of different weights on the bench at the same time. Read the safety notes before loading.

We have not found magnum primers to offer any particular advantage with our handgun powders. But, there are some rifle cartridges where they were used.

Handgun loads using the slower powders (No.7, No.9, and 1680) require heavy crimp and high bullet pull to insure consistency - particularly with cast bullet loads or in extremely cold weather. Be sure your dies are capable of this, otherwise the consistency of the load will be affected.

In the text, bullet weights for cast bullets - identified by (L) are actual weights, not the nominal weights.



# 7.62 X 39 - ACCURATE POWDERS

## 7.62x39mm

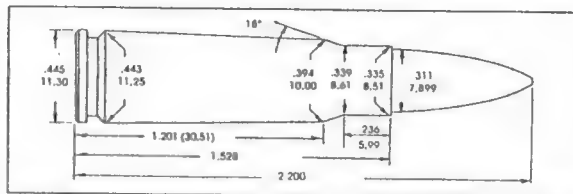
Developed by the Soviets in 1943, the 7.62x39mm (M43) Russian cartridge was undoubtedly influenced by the German 7.92 Kurz. This cartridge received worldwide attention during the Vietnam War. Returning GIs brought

Communist bloc weapons into the United States creating a demand for ammunition.

The 7.62x39mm cartridge is easy to reload and may be thought of basically as a rimless .30-30 Winchester in power. However, the .30-30 Winchester is capable of using heavier bullets than the 7.62x39mm.

The Ruger Mini 30, plus the current importation of the SKS and AK47 weapons into the United States, has added to the demand for data for this cartridge. Care should be exercised in that some U.S. made weapons chambered for this cartridge use .308" diameter bullets. Most foreign made weapons use bullets that are .311" diameter.

The SAAMI Maximum Average Pressure for the 7.62x39mm cartridge is 50,000 C.U.P.



### 7.62x39mm

Gun	HS Precision	Max Length	1.528"
Barrel Length	20"	Trim Length	1.513"
Primer	REM 9½	OAL Max	2.200"
Case	IMI	OAL Min	2.170"

Bullet	START LOADS Powder	Grains	Vel.	MAXIMUM LOADS Powder	Grains	Vel.	C.U.P.	Cartridge Length	Comment
SPR 100 RN	1680	25.7	2325	1680	28.5	2642	47,100	1.950"	0.308" dia.
	2015BR	25.7	1994	2015BR	28.5	2266	39,400		Compressed
	2230	26.6	1959	2230	29.5	2226	42,400		Compressed
	2460	26.6	1922	2460	29.5	2184	42,600		Compressed

SRA 110 HP	1680	24.8	2241	1680	27.5	2547	48,300	2.115"	0.308" dia.
	2015BR	25.7	1998	2015BR	28.5	2271	41,500		Compressed
	2230	26.6	1958	2230	29.5	2225	46,000		Compressed
	2460	26.6	1931	2460	29.5	2194	45,400		Compressed

Bullet	START LOADS Powder	Grains	Vel.	MAXIMUM LOADS Powder	Grains	Vel.	C.U.P.	Cartridge Length	Comment
SPR 125 SP	1680	23.0	2084	1680	25.5	2368	48,500	2.195"	0.311" dia.
	2015BR	25.7	2032	2015BR	28.5	2309	47,700		Compressed
	2230	26.6	1943	2230	29.5	2208	49,800		Compressed
	2460	26.6	1915	2460	29.5	2176	46,600		Compressed

HDY 130 SSP	1680	22.5	2020	1680	25.0	2296	47,900	2.180"	0.308" dia.
	2015BR	25.2	1947	2015BR	28.0	2213	45,300		Compressed
	2230	25.2	1843	2230	28.0	2094	47,000		Compressed
	2460	26.1	1866	2460	29.0	2120	47,000		Compressed

SRA 150 SP	1680	20.3	1808	1680	22.5	2055	49,000	2.180"	0.311" dia.
	2015BR	23.4	1823	2015BR	26.0	2072	46,500		Compressed
	2230	24.3	1739	2230	27.0	1976	49,500		Compressed
	2460	24.3	1721	2460	27.0	1956	47,600		Compressed

# 7.62 X 39 - ALLIANT POWDERS

**ALLIANT**

**CASE: FEDERAL**

**BARREL: 20"**

**PRIMER: CCI 200**

**BULLET: 100 GR. SPR PLINKER**

**DIA. .308"**

**C.O.L. 1.830"**

2400

16.5

2240

44,900 CUP

**BULLET: 110 GR. SIE HP**

**DIA. .308"**

**C.O.L. 2.055"**

RELODER 7

26.5

2330

38,300 CUP

2400

16.0

2115

44,800 CUP

**BULLET: 123 GR. HDY SP**

**DIA. .310"**

**C.O.L. 2.155"**

RELODER 7

25.5

2330

45,000 CUP

2400

15.3

1915

44,900 CUP

**BULLET: 150 GR. SIE SP**

**DIA. .311"**

**C.O.L. 2.000"**

RELODER 7

24.8

2145

44,600 CUP

2400

14.8

1800

45,000 CUP

**NEVER EXCEED MAXIMUM LOADS.**

# 7.62 x 39 - IMR POWDERS

**IMR**

CASE: IMI

BARREL: 20"

PRIMER: CCI 200

POWDER	STARTING LOADS			MAXIMUM LOADS		
	GRS.	VEL.	PRESSURE	GRS.	VEL.	PRESSURE

**BULLET: 125 GR. SPR SP**

**DIA. .311"**

**C.O.L. 2.180"**

IMR 4198

24.0

2250

42,500 CUP

IMR 4227

18.5

1995

44,100 CUP

**BULLET: 150 GR. REM PSPCL**

**DIA. .311"**

**C.O.L. 2.210"**

IMR 4198

22.5

2070

43,600 CUP

IMR 4227

18.0

1885

44,400 CUP

**NEVER** EXCEED MAXIMUM LOADS.

## WINCHESTER Centerfire Rifle Components

When selecting reloading supplies, be sure to look for the following finest quality Winchester components.

### Primers

WLR, #8-1/2 - 120, Large Rifle

WLRM, #8-1/2M - 120, Large Rifle Magnum

WSR, #6-1/2 - 116, Small Rifle

### BALL POWDER Propellants

680 Powder, 1 Lb. Container

748 Powder, 1 and 8 Lb. Containers

760 Powder, 1 and 8 Lb. Containers

### Unprimed Rifle

U218	218 Bee	U300H	300 H&H Mag.
U22H	22 Hornet	U300	300 Savage
U22250	22-250 Rem.	U307	307 Win.
U220S	220 Swift	U308	308 Win.
U223R	223 Rem.	U3220	32-20 Win.
U225	225 Win.	U338	338 Win. Mag.
U243	243 Win.	U348	348 Win.
U6MMR	6mm Rem.	U356	356 Win.
U2520	25-20 Win.	U358	358 Win.
U2506	25-06 Rem.	U375H	375 H&H Mag.
U257P	257 Roberts + P	U375W	375 Win.
U264	264 Win. Mag.	U4440	44-40 Win.
U270	270 Win.	U44M	44 Rem. Mag.
U284	284 Win.	U4570	45-70 Govt.
U7MM	7mm Mauser	U458	458 Win. Mag.
U3006	30-06 Springfield		
U3040	30-40 Krag		
U300WM	300 Win. Mag.		







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Winchester is the only ammunition company that makes all of its own components, from raw materials through final product, for the control reloaders demand. Winchester primers are tested for consistent and dependable ignition in extreme temperatures. They are non-corrosive and non-mercuric, and they're carefully controlled for weight and height.

Winchester's patented smokeless, clean-burning BALL POWDER propellants are free-flowing for precise metering and chemically stable for consistent muzzle velocity, and reduced flash and barrel erosion.

Winchester metallic components offer the consistent performance found in factory loads.



# 7.62 x 39 - WINCHESTER POWDERS

WINCHESTER POWDER									
STARTING LOADS					MAXIMUM LOADS				
BULLET	POWDER	GRS.	VEL.	CUP	POWDER	GRS.	VEL.	CUP	
110 GR.	680	25.5	2390	39,000	680	26.5	2559	42,500	
122- 125 GR.	680	23.0	2321	40,000	680	25.0	2480	44,000	
150 GR.	680	21.0	2089	39,500	680	23.0	2240	43,500	

**NEVER** EXCEED MAXIMUM LOADS.

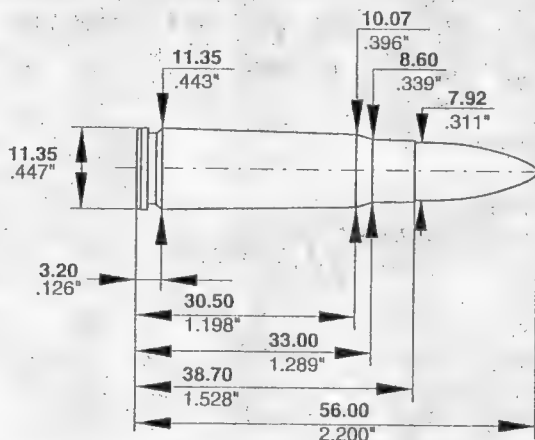
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(Source: Hodgdon Reloading Manual # 26)

## 7.62 x 39

CIP max. dimensions in millimetres; SAAMI in inches



Country of origin:	Soviet Union
Year of introduction:	1943
Primer:	Large Rifle
Max. bullet diameter:	7.92 mm (.311")
Max. cartridge length:	56.00 (2.200")
Max. shell length:	38.70 (1.528"), trim to 38.50 mm (1.518")
Max. CIP pressure:	320 MPa (46400 psi)
Max. SAAMI pressure:	50000 CUP/45000 psi

This is a Russian military cartridge which was first developed for the SKS semi-automatic rifle, but became truly famous in 1947 in "Kalashnikov" or AK-47 type assault rifles. It is in widespread official military use in ex-Warsaw Pact countries, but it is impossible to watch television newscasts from any restless part of the world without seeing AK-47s. They all use this cartridge.

In the U.S. the round was mainly limited to military buffs and collectors until the late 1980s when Ruger announced a semi-auto carbine chambered for 7.62 x 39. The rifle was called Mini-Thirty (referring to .30 caliber). Ruger literature claimed that 7.62 x 39 would do anything that the venerable .30-30 Win. did and then some. Some ads even said that the round was the only good thing to come from the then Soviet Union!

This started the popularity of the cartridge in the U.S., to the extent that all major U.S. cartridge manufacturers now offer Boxer-primed factory loadings.

Tikka of Finland used to chamber a bolt-action rifle in 7.62 x 39, but apart from this and Ruger, civilian rifles are rare. Some custom silhouette pistols have been chambered for this cartridge.

# 7.62 x 39 - VIHTAVUORI POWDERS

## 7.62 x 39

The same bullet diameter dilemma as in 7.62 x 53R (q.v.) appears in 7.62 x 39. Typically the military guns are designed for a 7.91 mm (.311") diameter bullet. It pays to check one's bore and ammunition, and to match them correctly. Firing a 7.91 mm bullet in a 7.83 mm barrel does not mean disaster, but it does increase the pressure as well as barrel heat, wear and tear and usually results in poor accuracy.

### TEST COMPONENTS:

**Test barrel:** 415 mm (16 1/2"), 1 in 9 1/2" twist, manufactured to meet CIP minimum dimensions.  
**Primers:** Vihtavuori No 68  
**Cases:** LAPUA, trim-to length 38.50 mm (1.515")

### Reloading Data, English Units:

Bullet				Powder	Maximum Load		
Weight [grs]	Type	Mfg.	O.A.L. [in.]	Type	Weight [grs]	Velocity [fps]	Pressure [psi]
123	FMJ	Sako	2.293	N120	26.5	2430	45000
123	SP	Sako	2.134	N120	26.7	2360	43500

### NOTE!

ONLY THE MAXIMUM LOADS ARE SHOWN IN THE TABLES ABOVE. START LOADING WITH APPROXIMATELY 10% SMALLER POWDER CHARGE.

INDICATES MAXIMUM LOAD - USE WITH CAUTION!

LOADS LESS THAN MINIMUM CHARGES SHOWN ARE NOT RECOMMENDED



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*The information presented is based upon results obtained in our ballistics laboratory. Safe loading practices should be observed at all times. Since IMR Powder Company has no control over the circumstances of loading, we assume no liability for the results obtained, and we guarantee only that our powder meets our manufacturing standards.*

**= WARNING =**

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*All Accurate Arms Company, Inc. listed loads are for professional use and are not intended as instructional material or text for the novice. Examine each fired case as you work up a load. Do not load to maximum charge levels without knowing the design limits of the firearm. Do not exceed maximum charges listed. Double check each step. Guard against errors in powder charge and bullet weight. Slight variations in components can create dangerous pressure levels.*

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## POWDER BURNING RATE CHART

*Current Canister Grade Powders in order of approximate burning rate.  
(R1 being the fastest, 748 the slowest)*

*This list is approximate only and not to be used for developing loads.*

- |                              |                            |
|------------------------------|----------------------------|
| 1. R-1, Norma                | 36. No. 9, Accurate Arms   |
| 2. N31, Vihtavuori           | 37. R123, Norma            |
| 3. TITEWAD, Accurate Arms    | 38. N110, Vihtavuori       |
| 4. RED DOT, Alliant          | 39. H110, Hodgdon          |
| 5. CLAYS, Hodgdon            | 40. 296, Winchester        |
| 6. "HI-SKOR" 700-X, IMR Co.  | 41. IMR4227, IMR Co.       |
| 7. BULLSEYE, Alliant         | 42. H4227, Hodgdon         |
| 8. TITEGROUP, Hodgdon        | 43. SR4759, IMR Co.        |
| 9. American Select, Alliant  | 44. 1680, Accurate Arms    |
| 10. SOLO 1000, Accurate Arms | 45. 200, Norma             |
| 11. GREEN DOT, Alliant       | 46. Reloader 7, Alliant    |
| 12. INTERNATIONAL, Hodgdon   | 47. IMR4198, IMR Co.       |
| 13. PB, IMR Co.              | 48. H4198, Hodgdon         |
| 14. N320, Vihtavuori         | 49. N120, Vihtavuori       |
| 15. WST, Winchester          | 50. H322, Hodgdon          |
| 16. No.2, Accurate Arms      | 51. 2015 BR, Accurate Arms |
| 17. SR 7625, IMR Co.         | 52. N130, Vihtavuori       |
| 18. HP-38, Hodgdon           | 53. IMR3031, IMR Co.       |
| 19. 231, Winchester          | 54. N133, Vihtavuori       |
| 20. UNIQUE, Alliant          | 55. H335, Hodgdon          |
| 21. UNIVERSAL, Hodgdon       | 56. N135, Vihtavuori       |
| 22. Power Pistol, Alliant    | 57. 2230, Accurate Arms    |
| 23. N330, Vihtavuori         | 58. 2460, Accurate Arms    |
| 24. HERCO, Alliant           | 59. H4895, Hodgdon         |
| 25. WSF, Winchester          | 60. IMR4895, IMR Co.       |
| 26. N340, Vihtavuori         | 61. RELODER-12, Alliant    |
| 27. "HI-SKOR" 800-X, IMR Co. | 62. IMR-4320, IMR Co.      |
| 28. SR4756, IMR Co.          | 63. 3100, Accurate Arms    |
| 29. NO. 5, Accurate Arms.    | 64. IMR 4064, IMR Co.      |
| 30. HS-6, Hodgdon            | 65. 202, Norma             |
| 31. 3N37, Vihtavuori.        | 66. 2520, Accurate Arms    |
| 32. N350, Vihtavuori         | 67. RELODER-15, Alliant    |
| 33. BLUE DOT, Alliant        | 68. N140, Vihtavuori       |
| 34. No. 7, Accurate Arms     | 69. VARGET, Hodgdon        |
| 35. 2400, Alliant            | 70. 748, Winchester        |

This is a unique reloading/information manual. It contains currently available data regarding loading information for this individual cartridge. This data is compiled from the leading U.S. Bullet and gunpowder manufacturers.

This manual is not intended to replace the many comprehensive, in-depth reloading manuals available from a host of publishers, but instead provide you with a quick and easy-to-use reference source which will enable you to compare loads, types of powders, bullets and shot charges for components you may have on hand.

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